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(54) **SYSTEM AND METHOD FOR PRESENTING IMAGE CONTENT ON MULTIPLE DEPTH PLANES BY PROVIDING MULTIPLE INTRA-PUPIL PARALLAX VIEWS**

(71) Applicant: **Magic Leap, Inc.**, Plantation, FL (US)

(72) Inventors: **Michael Anthony Klug**, Austin, TX (US); **Robert Konrad**, Palo Alto, CA (US); **Gordon Wetzstein**, Palo Alto, CA (US); **Brian T. Schowengerdt**, Seattle, WA (US); **Michal Beau Dennison Vaughn**, Round Rock, TX (US)

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(57) **ABSTRACT**

An augmented reality display system is configured to direct a plurality of parallactically-disparate intra-pupil images into a viewer's eye. The parallactically-disparate intra-pupil images provide different parallax views of a virtual object, and impinge on the pupil from different angles. In the aggregate, the wavefronts of light forming the images approximate a continuous divergent wavefront and provide selectable accommodation cues for the user, depending on the amount of parallax disparity between the intra-pupil images. The amount of parallax disparity is selected using a light source that outputs light for different images from different locations, with spatial differences in the locations of the light output providing differences in the paths that the light takes to the eye, which in turn provide different amounts of parallax disparity. Advantageously, the wavefront divergence, and the accommodation cue provided to the eye of the user, may be varied by appropriate selection of parallax disparity, which may be set by selecting the amount of spatial separation between the locations of light output.